

CLAIMS

1 1. A radio receiver system, comprising:
2 an RF tuner that receives a broadband signal and provides a received radio signal
3 associated with a certain channel F_n , in response to a command signal;
4 a memory device;
5 an evaluation unit that receives said received radio signal and determines the signal
6 strength of said received signal, and provides a signal strength value indicative thereof; and
7 a control unit that receives said signal strength value, reduces the value of said signal
8 strength value based upon signal noise on a channel F_{n-1} to provide a corrected signal strength
9 value, and writes to said memory device a frequency signal value indicative of said certain
10 channel F_n and provide said command signal to tune said tuner to said certain channel F_n when
11 said corrected signal strength value is greater than a threshold value.

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1 2. The radio receiver system of claim 1, wherein said RF tuner comprises an AM tuner.

1 1 3. The radio receiver system of claim 2, wherein said controller comprises means for
2 reducing said signal strength value based upon signal noise on a channel F_{n+1} to provide said
3 corrected signal strength value.

1 5 4. A method for automatically finding an AM radio program, by which an AM radio
2 receiver is tuned through in discrete steps, such that, for each set AM frequency, the reception
3 quality at the currently set AM frequency is determined, the field strength of the neighboring
4 frequencies is measured, and, if a field strength is detected at the neighboring frequencies, these

5 are taken into account in determining the overall reception quality, in that the reception quality is
6 reduced by a noise value, and subsequently the overall reception quality is compared with an
7 upper quality limit, and, if the upper quality limit is exceeded, the through-tuning process of the
8 AM radio receiver is stopped, and the AM radio receiver is set to the AM frequency with
9 sufficient overall reception quality, while otherwise the through-tuning process is continued.

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1 9 5. A method for automatically finding and storing an AM radio program, by which an AM
2 radio receiver is tuned through in discrete steps, such that, for each set AM frequency, the
3 reception quality at the currently set AM frequency is determined, the field strength of the
4 neighboring frequencies is measured, and, if a field strength is detected at the neighboring
5 frequencies, these are taken into account in determining the overall reception quality, in that the
6 reception quality is reduced by a noise value, and subsequently the overall reception quality is
7 compared with an upper quality limit, and, if the upper limit is exceeded, the AM frequency with
8 sufficient overall reception quality is stored in an AM radio program memory, and subsequently
9 the through-tuning process, together with the evaluation of the overall reception quality, is
10 continued until the entire AM frequency band has been tuned through, in such a way that the
11 stored AM frequencies can be retrieved by actuating station keys on the AM radio receiver.

10 6. The method of claim 5, wherein after the reception quality has been determined, it is
9 compared with a minimum quality value and, if the current reception quality is less than this
3 minimum quality, the through-tuning process is continued without measuring the field strength
4 at the neighboring frequencies, while otherwise the field strength at the neighboring frequencies
5 is measured, and they are taken into account for the overall reception quality.

12 1. The method of claim *5*, wherein the field strength is used as a measure of the reception
2. quality.

6 1. *8.* The method of claim *4*, wherein the time behavior of the field strength signal is
2. investigated and, if the AM frequency being investigated for its reception quality changes in
3. time, the through-tuning process is continued without measuring the field strength at the
4. neighboring frequencies, while otherwise the field strength at the neighboring frequencies is
5. measured and they are taken into account for the overall frequency.
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7 1. *9.* The method of claim *4*, wherein to investigate the time behavior of the field strength
2. signal, several random samples of this are taken and these are investigated for their variation,
3. and, if significant variations exist, the through-tuning process is continued without measuring the
4. field strength at the neighboring frequencies.

11 1. *10.* The method of claim *8*, wherein a memory unit stores the values of the field strength
2. and/or of the reception quality and, during the through-tuning process, each AM frequency is set
3. and investigated only once to determine the field strength and/or reception quality, and the field
4. strength and/or reception quality is stored and is retrieved from the memory unit without being
5. determined anew, if it is needed later on.

8 1. *11.* The method of claim *4*, wherein to determine the overall reception quality, the
2. neighboring frequencies are taken into account within a range of 2 kHz above and below the AM
3. frequency which is being investigated for overall reception quality.

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1 12. A radio receiver system of claim 1, wherein said control unit reduces the value of said
signal strength by a constant value based upon signal noise on a channel F_{n-1} to provide said
3 corrected signal strength value.